

REMARKS

Claims 1, 2, 5-9, 11-13 and 15-32 are pending in this application. By this Amendment, claims 1 and 22 are amended and claim 4 is canceled.

No new matter is added to the application by this Amendment. Support for the features added to claims 1 and 22 can be found in canceled claim 4.

Reconsideration of the application is respectfully requested.

I. Rejection Under 35 USC 102

Claims 1, 2, 5-9, 11-13, 15-17 and 19-31 were rejected under 35 USC 102(b) as allegedly being anticipated by JP 09-286958 to Azuma et al. (hereinafter "Azuma"). Applicants respectfully traverse this rejection.

The Patent Office alleges that Azuma discloses each and every feature recited in claims 1, 2, 5-9, 11-13, 15-17 and 19-31. Applicants respectfully disagree with the allegations by the Patent Office as set forth in the Office Action.

Canceled claim 4 was not rejection under 35 USC 102(b) in view Azuma. The features of canceled claim 4 are incorporated into amended claims 1 and 22. Thus, Applicants submit that amended claims 1 and 22 are not anticipated by Azuma.

Therefore, Azuma fails to disclose a flame-retardant pressure-sensitive adhesive having at least one tackifying resin component in an amount of at least 25% by weight of the adhesive as recited in amended claims 1 and 22.

Because the features of independent claims 1 and 22 are neither taught nor suggested by Azuma, Azuma cannot anticipate, and would not have rendered obvious, the features specifically defined in claims 1 and 22 and their dependent claims.

For at least these reasons, claims 1, 2, 5-9, 11-13, 15-17 and 19-31 are patentably distinct from and/or non-obvious in view of Azuma. Reconsideration and withdrawal of the rejection of the claims under 35 USC 102(b) are respectfully requested.

II. Rejections Under 35 USC 103

A. Azuma in view of Boyce et al. or Parsons et al.

Claims 4, 18 and 32 were rejected under 35 USC 103(a) as allegedly being unpatentable over Azuma in view of EP 0 018 643 to Boyce et al. (hereinafter "Boyce") or US 5,851,663 to Parsons et al. (hereinafter "Parsons"). This rejection is respectfully traversed.

The Patent Office alleges that each and every feature of the foregoing claims would have been obvious to a skilled artisan in view of the teachings of Azuma and Boyce or Azuma and Parsons. Applicants respectfully disagree with the allegations by the Patent Office as set forth in the Office Action.

In view of the cancellation of claim 4, this rejection is moot with respect to that claim. However, the features of canceled claim 4 are incorporated into claims 1 and 22. Therefore, Applicants take this opportunity to address this rejection in view of amended claims 1 and 22.

Azuma fails to teach or suggest that an adhesive having high amounts of resin added, at the same time with high amounts of ammonium polyphosphate, to compensate for decreased tackiness due to the inclusion of the ammonium polyphosphate. Azuma also fails to teach or suggest an adhesive having a flame

retardant component in an amount of at least 25% by weight of the adhesive and no greater than 60% by weight of the adhesive. Because Azuma does not teach or suggest a flame retardant at such high concentrations, Azuma does not teach or suggest inclusion of a tackifier at the claimed concentration.

A skilled artisan armed with the teaching of Azuma would not have been motivated to modify Azuma with the tackifiers of Parsons or Boyce and at the amounts according to Parsons and Boyce to achieve the presently claimed adhesive because Azuma is completely silent as to incorporating tackifier(s) at such high amounts, such as, of at least 25% by weight of the adhesive. Thus, Applicants submit that a skilled artisan would not have been motivated to modify Azuma with Parsons or Boyce to achieve the presently claimed adhesive.

Parsons fails to remedy the deficiencies of Azuma; thus, even if a skilled artisan was motivated to modify Azuma with Parsons as alleged by the Patent Office, the resulting combination would fail to achieve the presently claimed adhesive. On page 4 of the February 18, 2010 Office Action, the Patent Office alleges that Parsons teaches the features of canceled claim 4 by citing col. 16, line 65 to col. 17, line 5 of Parsons as allegedly teaching a hydrogenated rosin ester tackifier in an amount of about 37 wt. %. Applicants respectively disagree with this allegation by the Patent Office.

Contrary to the Patent Office's allegation, the cited passage of Parsons teaches an adhesive (C) produced from by adding 76.1 parts by wt. of the solution (containing 95.5 parts by wt. of copolymer and 4.5 parts by wt. of acrylic acid) to 23.9 parts by wt. of a solution (containing 46.96 wt. % of Foral 85 (tackifier), 30.43 wt. % of heptane and

22.61 wt. % of toluene). Thus, adhesive (C) of Parsons actually only contains 11.22% of Foral 85 (tackifier resin).

Boyce teaches that "[T]he amount of tackifying resin in the hot melt adhesive of the present invention is between about 0 parts by wt. to about 250 parts by wt. per 100 parts by wt. of the random copolymer of ethylene, methyl acrylate and at least one carboxylated unsaturated monomer. Mixtures of tackifiers can also be used" (see page 5, lines 20-26). In other words, Boyce only refers to the well known teaching that resins can be added to an adhesive in a quite broad range to improve the tackiness of an adhesive. However, there is no relation between high amounts of ammonium polyphosphate (i.e., at least 25% by weight and no greater than 60% by weight of the adhesive) and high amounts of at least one tackifying resin (at least 25% by weight of the adhesive), with the tackifying resin compensating for the decrease of adhesive properties caused by the addition of the ammonium polyphosphate. Boyce only teaches amounts of ammonium polyphosphate up to 10 % (i.e. in "normal" amounts). In this range, the decrease of adhesive properties can be disregarded, so that Boyce has no need to add resins to compensate this effect of decreased adhesive properties. In the presently claimed adhesive, the amount of ammonium polyphosphate is at least two and a half times higher than the highest amount disclosed by Boyce, and the drying effect of the ammonium polyphosphate is much higher and not comparable with presently claimed adhesive. Thus, a skilled artisan would not have been motivated to modify Azuma with the teachings of Boyce.

Therefore, Applicants submit that a *prima facie* case of obviousness cannot be established because Azuma provides absolutely no hint or suggestion to combine

Azuma composition with Parsons' tackifiers or with Boyce's tackifiers at the presently claimed amounts to achieve the presently claimed flame-retardant pressure-sensitive adhesive.

For at least these reasons, claims 1, 18, 22 and 32 are patentable over Azuma in view of Boyce or Parsons. Thus, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

B. Parsons

Claims 1, 2, 4-8, 11-13, 15, 18-29, 31 and 32 were rejected under 35 USC 103(a) as allegedly being unpatentable over Parsons. This rejection is respectfully traversed.

The Patent Office alleges that the foregoing claims would have been obvious to a skilled artisan in view of the teachings of Parsons. Applicants respectfully disagree with the allegations by the Patent Office as set forth in the Office Action.

As set forth above, Parsons' adhesive (C) is produced from by adding 76.1 parts by wt. of the solution (containing 95.5 parts by wt. of copolymer and 4.5 parts by wt. of acrylic acid) to 23.9 parts by wt. of a solution (containing 46.96 wt. % of Foral 85 (tackifier), 30.43 wt. % of heptane and 22.61 wt. % of toluene). Thus, contrary to the Patent Office allegations, adhesive (C) of Parsons contains 11.22% of Foral 85 (tackifier resin).

Thus, Parsons fails to teach or suggest a pressure-sensitive adhesive having a flame retardant component in an amount of at least 25% by weight of the adhesive and no greater than 60% by weight of the adhesive, wherein the adhesive comprises at least

one tackifying resin component in an amount of at least 25% by weight of the adhesive as required by claims 1 and 22

Because these features of independent claims 1 and 22 are not taught or suggested by Parsons, this reference would not have rendered the features of claims 1 and 22 and their dependent claims obvious to one of ordinary skill in the art.

For at least these reasons, claims 1, 2, 5-8, 11-13, 15, 18-29, 31 and 32 are patentable over Parsons. Thus, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

C. Parsons in view of Sakurai

Claim 9 was rejected under 35 USC 103(a) as allegedly being unpatentable over Parsons in view of US Patent No. 6,893,583 to Sakurai. This rejection is respectfully traversed.

Sakurai does not remedy the deficiencies of Parsons as set forth above with respect to independent claims 1, from which claim 9 depends, because Sakurai also fails to teach or suggest a flame retardant component in an amount of at least 25% by weight of the adhesive and no greater than 60% by weight of the adhesive, wherein the adhesive comprises at least one tackifying resin component in an amount of at least 25% by weight of the adhesive.

Accordingly, Parsons and Sakurai, taken singly or in combination, fail to teach or suggest a pressure-sensitive adhesive having a flame retardant component in an amount of at least 25% by weight of the adhesive and no greater than 60% by weight of

the adhesive, wherein the adhesive comprises at least one tackifying resin component in an amount of at least 25% by weight of the adhesive as required by claim 1.

Because the features of independent claim 1 are neither taught nor suggested by Parsons and Sakurai, taken singly or in combination, these references would not have rendered obvious to one of ordinary skill in the art, the features specifically defined in claim 1 and its dependent claims.

For at least these reasons, claim 9 is patentable over Parsons and Sakurai. Thus, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

D. Parsons in view of Everaerts

Claim 9 was rejected under 35 USC 103(a) as allegedly being unpatentable over Parsons in view of US Patent No. 5,648,425 to Everaerts. This rejection is respectfully traversed.

Everaerts does not remedy the deficiencies of Parsons as set forth above with respect to independent claims 1, from which claim 9 depends, because Everaerts also fails to teach or suggest a flame retardant component in an amount of at least 25% by weight of the adhesive and no greater than 60% by weight of the adhesive, wherein the adhesive comprises at least one tackifying resin component in an amount of at least 25% by weight of the adhesive.

Accordingly, Parsons and Everaerts, taken singly or in combination, fail to teach or suggest a pressure-sensitive adhesive having a flame retardant component in an amount of at least 25% by weight of the adhesive and no greater than 60% by weight of

the adhesive, wherein the adhesive comprises at least one tackifying resin component in an amount of at least 25% by weight of the adhesive as required by claim 1.

Because the features of independent claim 1 are neither taught nor suggested by Parsons and Everaerts, taken singly or in combination, these references would not have rendered obvious to one of ordinary skill in the art, the features specifically defined in claim 1 and its dependent claims.

For at least these reasons, claim 9 is patentable over Parsons and Everaerts. Thus, withdrawal of the rejection under 35 USC 103(a) is respectfully requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2, 5-9, 11-13 and 15-32 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Early and favorable action is earnestly solicited.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account
No. 14-1263.

Respectfully submitted,
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